

REMARKS

Claims 1-17 are pending in the present application. Claims 1, 7, 8, 12, 14, and 15 are amended. No new matter is added by the amendments. In view of the amendments and the following remarks, favorable reconsideration of this application is respectfully requested.

Applicants note with appreciation that the Office action acknowledges that claims 7, 8 and 15 are directed to patentable subject matter. Claims 7, 8, and 15 are amended into independent form including all of the limitations of the base claim and any intervening claims. Therefore, Applicants submit that the amended claims 7, 8, and 15 are allowable.

Claims 1, 2, 9-12, and 16-17 are rejected under 35 U.S.C. § 102(e) as being anticipated by Wu et al. (U.S. 7,046,629). Claim 14 is rejected under 35 U.S.C. § 102(e) as being anticipated by Ohnishi et al. (U.S. 2003/0031190). Claims 3-6 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wu et al. (U.S. 7,046,629) in view of Ohnishi et al. (U.S. 2003/0031190). Applicants respectfully traverse.

Applicants note with appreciation the Examiner's assistance in a telephone conversation in explaining that the Office action's citations to Wu are to the patent publication 2003/0058859, which led to the issued patent to Wu. Therefore, the following citations to Wu are to published patent application 2003/0058859.

Applicants submit that Wu does not identically disclose the feature of providing an address learning upper limit *for each user group*. Regarding the rejection based on Ohnishi, the reference also does not identically disclose that the number of learned addresses is limited based on respective user groups, as recited in the claim. Therefore Ohnishi does not identically disclose the feature of an address learning unit limiting a number of learned addresses on the basis of an individual guaranteed value set *for each user group*.

However, in the interest of expediting prosecution, and for the purpose of clarifying the claimed subject matter, Applicants herein amend the claims. Amended claim 1 includes a first feature, “an address learning unit for limiting a number of learned addresses such that a number of learned addresses for each of user groups which are classified into a plurality of groups based on header information set in said packet in said address learning table is equal to or less than an address learning upper limit value for said user group” and a second feature, “said address learning upper limit value is set for each user group”.

As the amended claim 1 includes the first feature, user groups are classified into a plurality of groups based on header information set in the packet such as VLAN ID. In amended claim 1, user groups are not classified by ports of received packets, but are classified into end-to-end user groups such as VLAN.

As the amended claim 1 includes the first and second features, a maximum number of learnable address of the address in the address learning table for each user group are not limited by ports, but can be limited according to a size of each network composed by end-to-end terminals such as VLAN size.

Wu discloses that, “[t]he method comprises the steps of a) adding a control mechanism in a learning mode of the switch; b) enabling one of a plurality of ports of the switch to detect a number of learned addresses in the address table; c) determining whether the number of learned addresses has exceeded a predetermined maximum number of learnable addresses of the address table; and d) locking the address table to stop learning and discard subsequently received packets having unmatched addresses if a result in the step c) is positive, ...” (Wu; para. 0010, lines 3-12).

In Wu, the predetermined maximum number of learnable address of the address table is set for each port. That is, Wu apparently discloses *classifying user groups by ports*. However,

Wu fails to disclose classifying into a plurality of user groups based on header information set in a packet such as VLAN ID in paragraph 0010, lines 3-12.

Further, Wu discloses that, “in response to the received packet one of the ports of the switch performs the steps for processing the received packet: e) comparing an address of the received packet and an address recorded in the address table; f) determining whether the address of the received packet is matched with one of previously learned and recorded addresses in the address table; g) performing an exchange of the packet if a result in the step f) is positive; h) if the result in the step f) is negative and the number of learned addresses in the address table has not exceeded the predetermined maximum number of learnable addresses of the port, ...” (Wu; para. 0011, lines 1-13).

However, Wu fails to disclose classifying into user groups based on header information set in a packet such as VLAN ID in paragraph 0011, lines 1-13. Accordingly, Wu fails to disclose the first and second features of the amended claim 1. Still further, classification by ports differs significantly from classification based on header information set in a packet. Therefore, Applicants submit that amended claim 1 is not anticipated by nor rendered obvious over Wu.

Ohnishi discloses that, “the method comprises the steps of: preparing an address table which stores at least one of a plurality of first terminal connection information, each being composed of a terminal address of a packet received by a port and a port number; preparing a port management table which stores at least one of a plurality of second terminal connection information, each being composed of *an upper limit number that can connect the terminals for each port number* and a present number of the terminals connected to the port having the port number while allowing the upper limit number and the present port number of the terminals to correspond to each other; ...” (Ohnishi; para. 0037, lines 6-17; emphasis added). That is, Ohnishi

apparently discloses classifying into a plurality of user groups by ports. However, Ohnishi fails to disclose classifying into user groups based on header information set in a packet such as VLAN ID in paragraph 0037, lines 6-17.

Further, Onishi discloses that, “an address table storing at least one of a plurality of first terminal connection information, each being composed of an address of the terminal and a port number to which the terminal is connected; a port management table which stores at least one of a plurality of second terminal connection information, each being composed of *an upper limit number that can connect the terminals for each port number* and a present number of the terminals connected to the port while allowing the upper limit number and the present port number of the terminals to correspond to each other; and an address learning section which when the packet is received by the port, retrieves the second terminal connection information having the number of the port from the port management table and, when the present number of the terminals of the retrieved second terminal connection information is less than the upper limit number, adds the first terminal connection information to execute a connection terminal number management.” (Ohnishi; para. 0038, lines 5-23; emphasis added).

However, Ohnishi fails to disclose classifying into user groups based on header information set in a packet such as VLAN ID in paragraph 0038, lines 6-23. Accordingly, Ohnishi also fails to disclose the first and second features of the amended claim 1. Therefore, Applicants submit that the amended claim 1 is not anticipated by nor rendered obvious over Ohnishi.

Amended claims 12 and 14 include features similar to the first and second features of amended claim 1. Therefore, Applicants submit that amended claims 12 and 14 are allowable over the references for at least the same reasons as claim 1 is allowable.

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Each of the dependent claims is allowable for at least the same reasons as their respective base claim is allowable.

In view of the remarks set forth above, this application is believed to be in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,

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